

NOTES ON BROMELIACEAE, XXX

Lyman B. Smith

Of necessity the present publication is the last preliminary before completing the manuscript of the subfamily Pitcairnioideae in my coming monograph. At the same time I am using this opportunity to publish a small accumulation of notes on the other subfamilies of the Bromeliaceae.

AECHMEA

AECHMEA R. & P. Prodr. 47. 1794. Nomen conservandum.

Gravisia Mez in Mart. Fl. Bras. 3, pt. 3: 180. 1891; 299. 1892

Originally Mez's distinction of Gravisia from Aechmea on the basis of polyporate pollen seemed a good one with correlation in the form of the inflorescence. Now, thanks chiefly to the research of Professor G. Erdtman, it appears that a good number of species that Mez classified as Aechmea have a variably polyporate pollen and that no correlation with the inflorescence remains. Consequently it is deemed necessary to transfer all the species and varieties of Gravisia to Aechmea as follows:

Gravisia aquilega (Salisb.) Mez in Mart. Fl. Bras. 3, pt. 3: 300. 1892 = AECHMEA AQUILEGA (Salisb.) Griseb. Fl. Brit. W. Ind. 592. 1864.

G. aquilega var. chrysocoma (Baker) L. B. Smith, Phytologia 8: 219. 1962 = AE. AQUILEGA var. CHRYSOCOMA (Baker) L. B. Smith, comb. nov. Based on Ae. chrysocoma Baker, Handb. Bromel. 44. 1889.

G. aripensis N. E. Brown, Bull. Torrey Bot. Club 53: 466. 1926 = AE. ARIPENSIS (N. E. Brown) Pittendrigh, Journ. Washington Acad. Sci. 48: 316. 1958.

G. brassicoides (Baker) Mez, DC. Monogr. Phan. 9: 173. 1896 = AE. BRASSICOIDES Baker, Journ. Bot. 20: 329. 1882.

G. capitata (Schult. f.) L. B. Smith, Arquiv. Bot. Estado S. Paulo II. 1: 57, pl. 73, fig. 2. 1941 = AE. CAPITATA (Schult. f.) Baker, Journ. Bot. 17: 167. 1879.

G. chrysocoma (Baker) Mez in Mart. Fl. Bras. 3, pt. 3: 301, pl. 65. 1892 = AE. AQUILEGA var. CHRYSOCOMA (Baker) L. B. Smith, cf. above.

G. constantinii Mez in Fedde Rep. Spec. Nov. 14: 245. 1916 = AE. CONSTANTINII (Mez) L. B. Smith, comb. nov.

G. exsudans (Lodd.) Mez in Mart. Fl. Bras. 3, pt. 3: 300. 1892 = AE. AQUILEGA (Salisb.) Griseb., cf. above.

G. fosteriana L. B. Smith, Phytologia 8: 218, pl. 1, fig. 1, 2. 1962, non Aechmea fosteriana L. B. Smith, 1941 = AE. MULFORDII L. B. Smith, nom. nov.

G. lanjouii L. B. Smith, Act. Bot. Neerlandica 5: 93, fig. 3. 1956 = AE. LANJOUWII (L. B. Smith) L. B. Smith, comb. nov.

G. rodriguesiana L. B. Smith, Phytologia 13: 153, pl. 7, fig. 18, 19. 1966 = AE. RODRIGUESIANA (L. B. Smith) L. B. Smith, comb.

nov.

G. rubens L. B. Smith, Phytologia 8: 218, pl. 1, fig. 3, 4.
1962 = AE. RUBENS (L. B. Smith) L. B. Smith, comb. nov.

DYCKIA

81a. DYCKIA BRACHYPHYLLA L. B. Smith, sp. nov. A D. elongata Mez, cui verisimiliter affinis, foliis valde minoribus, sepalis subduplo brevioribus differt.

PLANT flowering to 50 cm high. LEAVES densely rosulate; sheaths wholly covered, broad, 15 mm long; blades recurved, 7 cm long, 12 mm wide, soon glabrous above, covered beneath with appressed whitish scales, very laxly serrate with nearly straight slender spines 1.5 mm long. SCAPE lateral, straight, 3 mm in diameter, white-lepidote, soon glabrous; scape-bracts ovate, acuminate, entire, much shorter than the internodes. INFLORESCENCE simple, few-flowered, 7 cm long, lax at base, sparsely white-lepidote when young. FLORAL BRACTS ovate, acuminate, shorter than the sepals, entire; flowers subsessile. SEPALS broadly ovate, rounded at apex and cucullate, 4 mm long, ecarinate; petals erect, 8 mm long, orange, the blades elliptic, ecarinate; stamens included, the filaments free; stigmas sessile. Pl. I, fig. 1: Leaf-margin x 1; fig. 2: Flower x 1; fig. 3: Sepal x 2.

BRAZIL: MINAS GERAIS: in soil, cerrado on steep rocky slopes with thin gravelly soil, 20 km southwest of Diamantina, Serra do Espinhaço, 1300 m alt, 21 January 1969, Irwin, Santos, Souza & Fonseca 22383 (US, type; NY, isotype).

75a. DYCKIA COXIMENSIS Smith & Reitz, sp. nov. D. pumilum L. B. Smith simulans sed foliorum laminis lepidibus persistentibus utrinque vestitis, inflorescentiae lepidibus rarissimis minutissimisque, sepalis triangulari-ovatis differt.

PLANT flowering 3 dm high. LEAVES incompletely known, over 10 cm long; sheaths suborbicular, 15 mm long, brown; blades recurving, narrowly triangular, 15 mm wide, pungent, covered on both sides with persistent appressed cinereous scales, very laxly serrate with flat spines 1 mm long. SCAPE erect, 2 mm in diameter, very sparsely and minutely white-lepidote; scape-bracts remote, small, ovate, acuminate, pungent. INFLORESCENCE simple, laxly few-flowered, 4 cm long; axis slender, very sparsely and minutely lepidote. FLORAL BRACTS broadly ovate, acuminate, the lower ones about equaling the sepals; flowers spreading; pedicels obconic, 1 mm long. SEPALS triangular-ovate, obtuse, 5 mm long, the posterior carinate; petals 10 mm long, orange; blade suborbicular, slightly carinate; anthers slightly exserted; filaments free above the short tube; style very short. Pl. I, fig. 4: Leaf-margin x 1; fig. 5: Flower x 1; fig. 6: Sepal x 2.

BRAZIL: MATO GROSSO: on rocks, Rio Coxim, near Rodovia Federal - BR, 20 November 1968, Reitz 7365 (HBR, type; photo US).

95a. DYCKIA CROCEA L. B. Smith, sp. nov. A D. aurea L. B. Smith, cui verisimiliter affinis, foliis angustioribus, petalorum laminis angustioribus differt.

PLANT flowering 6-12 dm high. LEAVES many, rosulate, to 25 cm

long; sheaths suborbicular, 3 cm long, yellow, glabrous and lustrous within; blades very narrowly triangular, 8-13 mm wide, covered with pale appressed scales beneath, soon glabrous above, laxly serrate with recurved or spreading spines 1-2.5 mm long. SCAPE straight or nearly so, 4-6 mm in diameter, glabrous; scape-bracts ovate, acuminate, shorter than most of the internodes, entire or inconspicuously serrulate. INFLORESCENCE normally simple, laxly many-flowered, 17-32 cm long, soon glabrous. FLORAL BRACTS spreading, ovate, acuminate, shorter than the sepals, entire. SEPALS ovate, acute, 8-9 mm long, more or less carinate; petals 15 mm long, orange, the blades elliptic, cucullate; stamens included, the filaments connate above the common tube; stigmas subsessile. Pl. I, fig. 7: Leaf-margin x 1; fig. 8: Flower x 1.

BRAZIL: PARANÁ: open fields, Paso do Pupo, Ponta Grossa, 10 October 1967, Hatschbach 17391 (US, type); 17372 (US); Rio Can-guirí, Colombo, 3 October 1967, Hatschbach 17248 (US).

21b. DYCKIA FOSTERIANA L. B. Smith var. ROBUSTIOR L. B. Smith, var. nov. A var. fosteriana omnibus partibus robustioribus, foliis vix repandis, sepalis majoribus differt.

LEAVES with blades 12 mm wide, laxly serrate with mostly an-trorse spines to 4 mm long. SCAPE 6 mm in diameter. INFLORES-CENCE dense. SEPALS to 9 mm long.

BRAZIL: PARANÁ: Mun. Campina Grande do Sul: in soil, crest of hill, Pico Caratuva, 1950 m alt, 5 October 1967, Hatschbach 17310 (US, type).

Further collections may indicate that this taxon is of specific rank.

95b. DYCKIA PLATYPHYLLA L. B. Smith, sp. nov. A D. aurea L. B. Smith, cui verisimiliter affinis, foliis latioribus antrorse serratis, petalorum laminis angustioribus differt.

PLANT flowering 8 dm high. LEAVES to 23 cm long; sheaths suborbicular, 5 cm long, yellowish, glabrous; blades narrowly triangular, 50 mm wide, thick, succulent, covered beneath with appressed whitish scales, glabrous above, repand-serrate with slender antrorse spines 3 mm long. SCAPE slender, much compressed at base and therefore doubtless lateral, somewhat flexuous, glabrous; scape-bracts small and much shorter than the internodes, broadly ovate and acuminate, entire or subentire, sparsely pale-lepidote. INFLORESCENCE simple, lax, many-flowered, 28 cm long, glabrous. FLORAL BRACTS broadly ovate, acuminate, the lower ones about equaling the sepals; flowers mostly suberect; pedicels stout, 1-2 mm long. SEPALS broadly ovate, rounded and cucullate, 8 mm long, ecarinate; petals 11 mm long, yellow, the blade elliptic; stamens included, the filaments connate above the common tube; stigmas sessile. Pl. I, fig. 9: Leaf-margin x 1; fig. 10: Flower x 1; fig. 11: Sepal x 2.

BRAZIL: BAHIA (?): 1948, cultivated and flowered 22 April 1969, Foster 2489 (US, type).

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ENCHOLIRIUM

ENCHOLIRIUM IRWINII L. B. Smith, sp. nov. A E. gracile L. B. Smith, cui affinis, petalis subduplo minoribus sepala paulo superantibus, bracteis florigeris pedicellos aequantibus vel superantibus; ovulis breviter caudatis differt.

PLANT flowering 1.5 m high. LEAVES (only the inner known) to 35 cm long; sheaths suborbicular, 25 mm long, castaneous beneath; blades very narrowly triangular, 12 mm wide at base, soon glabrous, laxly serrate with curved spines 3 mm long. SCAPE erect, 7 mm thick near base, glabrous; lower scape-bracts subfoliaceous with long slender blades exceeding the internodes but wholly exposing the scape, the upper greatly reduced and several times shorter than the internodes, entire, brown. INFLORESCENCE simple, lax, to 42 cm long, glabrous; axis slender, slightly flexuous. FLORAL BRACTS narrowly triangular, equaling or exceeding the pedicels, entire; pedicels subspreading, slender, to 5 mm long. SEPALS ovate, obtuse, 6 mm long, broadly convex, light green with purple spot at apex; petals elliptic, 8 mm long, light green; anthers exserted; ovules obliquely short-caudate at apex. Pl. I, fig. 12: Flower x 1.

BRAZIL: MINAS GERAIS: rocky river bank, Rio Itacambiruçu, and adjacent rocky cerrado, ca 10 km west of Grão Mogul, road to Cristália, 900 m alt, 19 Feb 1969, Irwin, Santos, Souza & Fonseca 23573 (US, type; NY, isotype).

GRAVISIA

(cf. under Aechmea)

GUZMANIA

GUZMANIA FILIORUM L. B. Smith, sp. nov. A G. retusa L. B. Smith, cui affinis, foliorum laminis latioribus vix retusis, inflorescentia angusta differt.

PLANT stemless, flowering 35 cm high. LEAVES 15-20 in a funnelform rosette, to 25 cm long, covered on both sides with pale appressed scales; sheaths broadly elliptic, 10 cm long, purple-striped; blades ligulate, rounded and apiculate, 3 cm wide. SCAPE erect, curved, hidden by the leaves; scape-bracts imbricate, broadly elliptic, apiculate, stramineous when dry, appressed-lepidote especially toward apex. INFLORESCENCE simple, (known only in fruit), dense, 10 cm long, probably 15-20 mm in diameter at anthesis, polystichous with flowers about 3-ranked. FLORAL BRACTS suberect, like the upper scape-bracts, about equaling the sepals, coriaceous, even; pedicels obconic, 3 mm long. SEPALS broadly ovate, 15 mm long, connate for 5 mm, coriaceous, even, glabrous. CAPSULE slenderly cylindric, beaked, 35 mm long; coma red-brown. Pl. I, fig. 13: Leaf-apex x 1/2; fig. 14: Inflorescence x 1/2; fig. 15: Sepals x 1.

PANAMA: PANAMA: in tree, Cerro Campana, 9 June 1968, S. F. & C. C. Smith 2 (US, type).

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GUZMANIA REMYI L. B. Smith, sp. nov. A G. apiculata L. B. Smith, cui affinis, foliis acutis, bracteis florigeris ellipticis, sepalis majoribus obtusis differt.

PLANT stemless. LEAVES about 10 in a funnelform rosette, 4 dm long, exceeding the inflorescence; sheaths broad, distinct; blades ligulate, acute and apiculate, 3 cm wide, obscurely punctulate-lepidote beneath. SCAPE erect, curved, slender, largely hidden by the leaves; scape-bracts erect, imbricate, broadly elliptic, caudate to apiculate, membranaceous. INFLORESCENCE simple, densely fusiform, 12 cm long, 3 cm in diameter, many-flowered, sterile toward apex. FLORAL BRACTS like the upper scape-bracts 35 mm long, much exceeding the sepals, obscurely lepidote; pedicels short, obconic. SEPALS elliptic, obtuse, cucullate, 17 mm long, connate for 5 mm, membranaceous. Pl. 1, fig. 16: Leaf-apex x 1/2; fig. 17: Inflorescence x 1/2; fig. 18: Sepals x 1.

ECUADOR: BOLÍVAR-GUAYAS: forests between Guaranda and Bodegas (Babahoyo), November 1856, Remy s n (P, type; US, photo).

PITCAIRNIA

PITCAIRNIA subgenus PEPINIA (Brongn. ex André) Baker, Journ. Bot. 19: 227. 1881. Pepinia Brongn. ex André, Ill. Hort. 17: 32, pl. 1870. Type. Pepinia aphelandriflora (Lem.) André. (Pitcairnia aphelandriflora Lem.).

In choosing a subgeneric name for Pitcairnia with alate seeds, I overlooked the fact that Baker's name Pepinia is essentially a new combination, although on page 227 where the name is published there is no indication of a combination. However, on the previous page Baker has the note: "The following names in my view, represent only synonyms or subgenera, viz: -.....Pepinia, A. Brongn.: André....."

Since Baker listed three species, I felt free to consider P. punicea Scheidw. with alate ovules as the type and to exclude P. aphelandriflora with naked ovules as probably derived from the type with caudate ovules (Phytologia 10: 33. 1964). However, since the type and only species of the basionym is P. aphelandriflora, then it is automatically the type of the new combination. Also, upon further consideration, I believe it is more likely that in this case the naked ovule derived from the alate ovule.

Thus in my artificial key to the species of Pitcairnia, P. aphelandriflora would remain in the same place, but would become number 13 because of the change in subgenus.

166a. PITCAIRNIA SALTENSIS L. B. Smith, sp. nov. P. carnea Beer, P. macrobotrys André et P. orchidiflora Mez, in systemate mea proxima sed foliorum laminis apice serrulatis subtus lepidibus patentibus vestitis, petalis lepidotis differt.

PLANT flowering over 7 dm high. LEAVES incompletely known but apparently all alike, 5 dm long; sheaths 2-3 cm long, ample, dark brown, entire; blades linear, 8 mm wide, long-attenuate and laxly serrulate toward apex, elsewhere entire, slightly narrowed toward base, pubescent-lepidote beneath. SCAPE erect, slender, white-lepidote; scape-bracts erect, equaling or exceeding the inter-

nodes, narrowly subtriangular. INFLORESCENCE simple, subclax, many-flowered, to 28 cm long (! Castellanos), white-lepidote including the petals. FLORAL BRACTS like the upper scape-bracts, exceeding the 12 mm long slender pedicels; flowers suberect. SE-PALS lance-ovate, attenuate, 20-30 mm long, ecarinate, green; petals 4 cm long, red, about equaling stamens, bearing a large truncate scale at base; ovary nearly 1/2 inferior; ovules caudate (?). Pl. I, fig. 19: Flower x 1/2; fig. 20: Sepal x 1.

ARGENTINA: SALTA: Orán: Río Iruya, Limoncito, April 1947, Pierotti s n (LIL 458624, type, US photo), cultivated in Lillo Hortus and illustrated in color.

247a. PITCAIRNIA AUREA Rusby ex L. B. Smith, sp. nov. A P. egleri L. B. Smith, cui affinis, bracteis florigeris pedicellos superantibus, sepalis attenuatis majoribus differt.

PLANT caulescent, flowering 6 dm high; stem repent, at least 12 cm long, appearing 3 cm in diameter because of the covering of old leaf-bases. LEAVES (complete) few and fasciculate at the apex of the stem; sheaths suborbicular, 2 cm long, dark castaneous; blades all persistent, polymorphic, varying by degrees from slender dark spinose-serrate spines to large fully functional ones, the larger linear, attenuate, narrowed toward base but not truly petiolate, to 8 dm long, 20 mm wide, bearing a pale median channel, entire except for the serrate base, completely (?) glabrous. SCAPE erect, slender; scape-bracts erect, attenuate, the lower lanceolate and imbricate, the upper triangular-ovate and shorter than the internodes. INFLORESCENCE simple, lax, many-flowered, finely and laxly pubescent-lepidote. FLORAL BRACTS lanceolate, apiculate, shorter than the pedicels; flowers suberect; pedicels very slender, to 20 mm long. SEPALS lanceolate, attenuate, to 27 mm long, obtusely carinate; petals 6 cm long, golden yellow (! Rusby), bearing a rounded scale at base; ovary ca 1/2 inferior; ovules caudate. Pl. I, fig. 21: Sepal x 1.

BOLIVIA: LA PAZ: on cliff, Bopi River Valley, 900 m, 12 September 1921, Rusby 665 (NY, type, US, photo).

PUYA

PUYA subgenus PUYOPSIS (Baker) L. B. Smith, comb. nov. Pitcairnia subgenus Puyopsis Baker, Handb. Bromel. 91 (with description as "section" in a series of subgenera), 117 (as "subgenus" without description but including the same species numbers as before). 1889. Lectotype. Puya brachystachya (Baker) Mez. (Pitcairnia brachystachya Baker).

Puya subgenus Pitcairniopsis Mez, DC. Mon. Phan. 9: 475. 1896. P. subgenus Pourretia Mez, DC. Mon. 9: 489. 1896. P. subgenus Chagualia Smith & Looser, Revista Universitaria 20: 243. 1935.

Baker distinguished Pitcairnia with septicidal capsules from Puya with loculicidal, and erected the subgenus Puyopsis in Pitcairnia as being technically Pitcairnia but habitally Puya. However, capsule dehiscence has not proven to be a reliable character even at the species level and most of the species that Baker listed under Puyopsis are now Puya as that genus is typified.

Baker further confused the issue by writing "section" when he obviously meant "subgenus" and by including 2 species of true Pitcairnia with red petals under Puyopsis which he described as having: "Flowers white or blue."

However, as the description stands, Puyopsis is the part of Puya other than the subgenus Puya and is the equivalent of Mez's later subgenera Pitcairniopsis and Pourretia combined, or Pitcairniopsis as I amended it. My selection of Puya brachystachya as the lectotype of subgenus Puyopsis is intended to present its simple wholly fertile inflorescence as a maximum contrast to the compound partially sterile one of subgenus Puya.

PUYA COERULEA Lindl. Bot. Reg. 26: pl. 11. 1840.

Gualterio Looser has discovered from field observations that Puya violacea (Brongn.) Mez intergrades with the earlier P. coerulea Lindl. and can not be considered as more than a variety. With his usual modesty he has designated himself as second author of the following necessary combinations:

PUYA COERULEA var. VIOLACEA (Brongn.) Smith & Looser, comb. nov. Pitcairnia violacea Brongn. Ann. Fl. & Pom. III. 1: 116, fig. 1847; Allg. Gartenzeit. 15: 299. 1847. Puya violacea (Brongn.) Mez, DC. Mon. Phan. 9: 476. 1896.

PUYA COERULEA var. MONTEROANA (Smith & Looser) Smith & Looser, comb. nov. Puya violacea var. monteroana Smith & Looser, Revista Universitaria 20: 252, fig. 6. 1935.

PUYA COERULEA var. INTERMEDIA (Smith & Looser) Smith & Looser, comb. nov. Puya violacea var. intermedia Smith & Looser, Revista Universitaria 20: 252, fig. 7. 1935.

KEY TO THE VARIETIES OF P. COERULEA:

1. Floral bracts exceeding the centers of the sepals, ample.
Var. coerulea
1. Floral bracts much exceeded by the sepals or even by the pedicels, rather narrow.
2. Inflorescence glabrous by anthesis.
3. Floral bracts shorter than the pedicels.....Var. violacea
3. Floral bracts exceeding the pedicels.....Var. monteroana
2. Inflorescence densely and persistently white-tomentose.
Var. intermedia.

TILLANDSIA

TILLANDSIA MAGNUSIANA Wittm. Bot. Jahrb. 11: 66. 1901. T. plumosa sensu Mez, DC. Mon. Phan. 9: 735. 1896; L. B. Smith, North American Flora 19: 153. 1938, in part, not as to type. T. plumosa var. magnusiana (Wittm.) Rohweder, Univ. Hamburg, Abh. Geb. Auslandsk. 61, Reihe C, Naturwiss. 18: 80. 1956.

SCAPE almost none. INFLORESCENCE typically 2-flowered. FLORAL BRACTS 25-35 mm long, much exceeding the sepals. SEPALS 15-18 mm long; petals 35-40 mm long; stamens exserted.

The leaves of Tillandsia magnusiana and of the earlier T. plumosa Baker are practically indistinguishable, both having

nearly setaceous blades and very fine linear spreading scales. Typical T. plumosa has a distinct scape but in some specimens it is nearly lacking as in T. magnusiana.

Baker described the type and only specimen of his T. plumosa as lacking petals. Mez added a Karwinsky collection to the citation of T. plumosa and undoubtedly on this basis changed the description of the floral bracts from about equaling the sepals to much exceeding them. He also added that the petals were violet, tubular-erect, and shorter than the stamens.

Actually true T. plumosa combines a distinct scape, short floral bracts, and short yellow-green petals that exceed the stamens. All of this was strikingly illustrated by flowering plants in the live collection of Alfred Blass when I visited him in München. Hopefully colored illustrations of the two species will yet be published, but it is necessary to place the correction on record now.

TILLANDSIA SPICULOSA Griseb. Nachr. Ges. Wiss. Goett. "1864": 17. 1865.

This species has certain geographic trends but intermediates are so numerous that it is impossible to maintain T. triticea Burchell ex Baker or T. micrantha Baker as species or T. palmana Mez as even a variety. Thus the following changes are necessary:

TILLANDSIA SPICULOSA var. SPICULOSA. T. brittoniana Baker, Handb. Bromel. 195. 1889. T. palmana Mez, Bot. Jahrb. 30, Beibl. 67: 9. 1901. T. micrantha Baker, Bull. Torrey Bot. Club 29: 698. 1902, non Baker, 1887. T. spiculosa var. palmana (Mez) L. B. Smith, Contr. Gray Herb. 89: 14. 1930.

TILLANDSIA SPICULOSA var. USTULATA (Reitz) L. B. Smith, comb. nov. T. triticea Burchell ex Baker, Journ. Bot. 26: 42. 1888. T. parkeri Baker, Journ. Bot. 26: 42. 1888. T. viridis Baker, Handb. Bromel. 204. 1889. Vriesea luschnathii Mez in Mart. Fl. Bras. 3, pt. 3: 555, pl. 103. 1894. Tillandsia triticea var. ustulata Reitz, Sellowia no. 14: 108. 1962.

TILLANDSIA SPICULOSA var. MICRANTHA (Baker) L. B. Smith, comb. nov. T. micrantha Baker, Journ. Bot. 25: 303. 1887. T. chinchi-cuana Harms, Notizblatt 10: 578. 1929.

KEY TO THE VARIETIES OF T. SPICULOSA:

1. Floral bracts (5-) 6-9 mm long, mostly more than twice as long as the internodes; spikes densely flowered at least toward apex.
2. Leaf-blades concolorous or merely spotted; inflorescence usually tripinnate.....Var. spiculosa
2. Leaf-blades irregularly cross-banded with dark purple; inflorescence usually bipinnate.....Var. ustulata
1. Floral bracts 4-5 mm long, mostly less than twice as long as the internodes; spikes laxly flowered at maturity.
- Var. micrantha

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VRIESEA

VRIESEA HETEROSTACHYS (Baker) L. B. Smith, comb. nov. V. incurvata sensu E. Morr. Belg. Hort. 32: 52, pl. 2. 1882, in part as to Binot s n, non Gaud. 1843. Tillandsia inflata Baker, Bot. Mag. 112: pl. 6882. 1886, in part, as to Binot material and plate, not as to Vriesea inflata Wawra. T. heterostachys Baker, Journ. Bot. 26: 106. April 1888. Vriesea conferta sensu Mez, DC. Mon. Phan. 9: 582. 1896, in part, as to Tillandsia heterostachys Baker, non Gaud. 1843. Vriesea petropolitana L. B. Smith, Arq. Bot. S. Paulo II. 1: 120, pl. 130. 1943. V. x fulgida Hort. Duval, Ill. Hort. 35: 87, pl. 67. December 1888 or later (= V. duvaliana x rostrum-aquilae (= incurvata)).

BRAZIL: Hort. Brussels (BR, clonotype (?) of Vriesea x fulgida). (SÃO PAULO:) "southern Brazil", (Le Joly in) Glaziou 13260 in part (B, type, US photo; P, isotype).

The names Tillandsia heterostachys and Vriesea x fulgida are both dated "1888", but only the first has a definite month "April". However, Robert Foster has kindly investigated the copy of Illustration Horticole at Harvard for me and reports that the publication of V. x fulgida could not have been earlier than the end of the year since on page 85 there is a report for December 1888.

VRIESEA VIDALII Smith & Handro, sp. nov. A V. sincorana Mez, cui verisimiliter affinis, spicis densioribus, bracteis florigeris majoribus quam internodiis 4-plo longioribus, sepalis bracteas florigeras paulo superantibus differt.

PLANT flowering 5 dm high. LEAVES rosulate, 3 dm long; sheaths broadly ovate, 10 cm long, covered with fine brown appressed scales; blades ligulate, rounded and apiculate, 5 cm wide, apparently concolorous, subdensely and minutely brown-lepidote on both sides. SCAPE somewhat curved toward apex but not deflexed, exceeding the leaves; scape-bracts erect, the lowest subfoliaceous and densely imbricate, the highest suborbicular, apiculate, red, equaling or slightly exceeding the internodes. INFLORESCENCE few-branched, compact, 11-17 cm long; primary bracts like the upper scape-bracts, equaling to shorter than the short sterile bracteate bases of the spikes; spikes suberect, elliptic, to 8 cm long, 4 cm wide, strongly complanate; rhachis nearly straight, 4-angled. FLORAL BRACTS imbricate but not wholly covering the rhachis, incurved toward apex, ecarinate, 3 cm long, about 4 times as long as the internodes, slightly exceeded by the sepals, thick, probably somewhat fleshy, nearly even when dry, obscurely punctulate-lepidote at apex; flowers not at all secund; pedicels slenderly obconic, 5 mm long. SEPALS narrowly obovate, obtuse and cucullate, 28 mm long, even, brown-lepidote inside; petals-blades elliptic, 10 mm long; stamens exserted. Pl. I, fig. 22: Leaf-apex x 1/2; fig. 23: Inflorescence x 1/2; fig. 24: Sepal x 1.

BRAZIL: RIO DE JANEIRO: Near Abrio (shelter) no. 2, Serra dos Órgãos, Terezópolis, June 1952, José Vidal - II no. 3267 (US type, R isotype).

Plate I

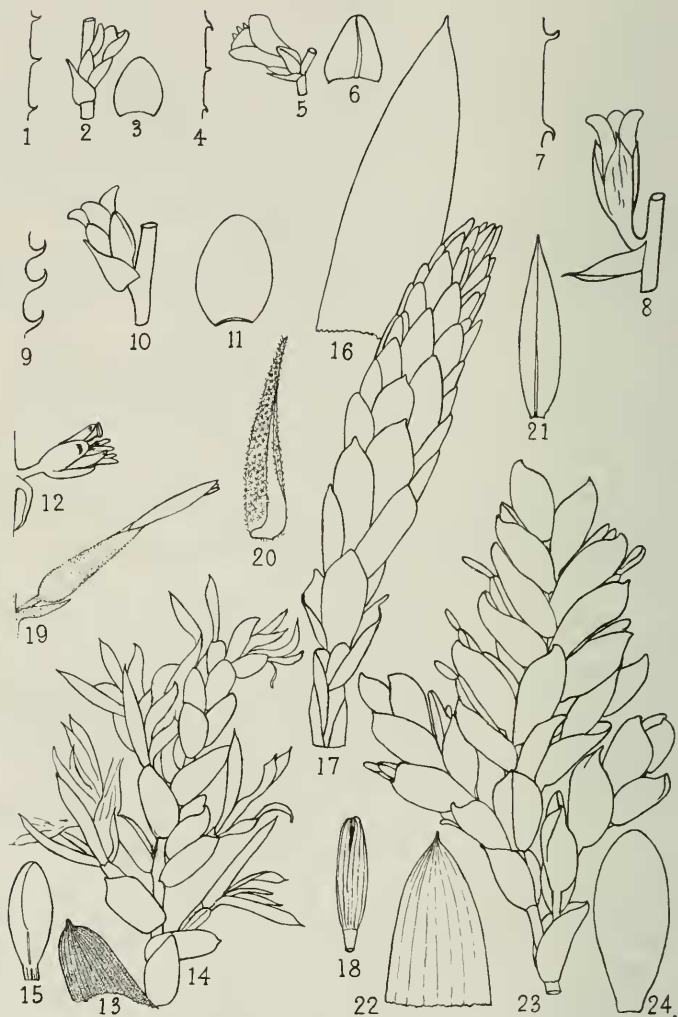


Fig. 1-3: *Dyckia brachyphylla*; 4-6: *D. coximensis*; 7, 8: *D. crocea*; 9-11: *D. platyphylla*; 12: *Encholirium irwinii*; 13-15: *Guzmania filliorum*; 16-18: *G. remyi*; 19-20: *Pitcairnia saltensis*; 21: *P. aurea*; 22-24: *Vriesea vidalii*.